M·N·R·G
Midwest Natural Resources Group

Annual Meeting

November 8-10, 2005
Minneapolis Airport Marriott Hotel

"Collaboration and Partnerships: Strategies for Meeting the Invasive Species Threat"

Notes

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Welcome and Introductory Comments
Ernie Quintana, National Park Service Midwest Regional Director and MNRG Chair
- share information and find opportunities to work collaboratively
- working to redefine ourselves (MNRG)
- forum to deal directly with issues of concern, hopefully an action plan-we have a lot at stake

Jerri-Anne Garl (EPA) for Bharat Mathur, Acting Regional Administrator of EPA and MNRG Vice-Chair
- important step, important meeting, common issue to come together on, send a signal to partners that we want to work together; collaboration & partnership is central role for all agencies
- understand unique roles, focus on achievable goals that each agency can address, our respective goals,
- EPA will host MNRG meeting in Chicago area next fall.

"Defining the Invasive Species Challenge to the MNRG in the Midwest"
Jay Rendall, Invasive Species Program Coordinator, Minnesota Department of Natural Resources

- What is an Invasive Species? Exec order 13112 Definition - An alien species is one whose introduction does or is likely to cause economic or environmental harm or harm to human health. "Rule of 10" states that 10% of nonnative species become established---of those 10% become invasive. Some introduced species are generally beneficial. Others are "biological pollution" causing harm to an area of natural environment introducing damaging living organisms.

- Why should you care? Chemicals degrade over time, but invasives just spread & continue to increase. Agency responsibility is to protect natural assets. If forests can't regenerate due to invasives, lands are diminished. Invasives spreading across Midwest in all directions and hundreds of species involved. Like graffiti, defacing and replacing the landscape. Leafy spurge replaces prairie. Round goby can eat 80% bass eggs in nest in 15 mins. Zebra mussel – kill native mussels, plug up intakes, litter beaches and increase toxic algae; gypsy moth-defoliates 300 species of trees; Emerald Ash Borer working its way across the Midwest. Garlic mustard covers entire

understory of forest halting regeneration of trees. Global warming change increases stress on native species and advantage to invasives.
- Lessons Learned – Traditional approach to invasives often reactive, too late and less than effective, "feral cat" is out of bag before many actions are taken. Need to be proactive. The focus has shifted to: prevention, early detection, rapid response, contain/quarantine. U.S. Office of Technology Assessment report in 1993 found 22 federal agencies identified role in NNIS with an uncoordinated patchwork of laws & programs. We've gotten better since then but still many challenges to agencies & MNRG.
- Need to connect many entities and ensure meaningful participation. Need work with partners at all levels and maximize resources by prioritizing & working together.
- Develop products than can be used by all, avoid duplication, provide consistent messages and common guidelines.
– National coordination cap and actions are likely to require a dedication of resources akin to wildfire mgmt & suppression, need major investments- this is a "hurricane" in the Midwest.

1. MNRG can make a difference
2. Determine what's needed
3. Act soon
4. Act together with appropriate partners-invasives cross borders
    - intercept invaders (coast guard, APHIS, FWS)
    - research capabilities to find better mgmt tools
    - develop plans and participate in others plans - USFS
    - inform decision makers about what is needed-larger investments needed to & from you

Inform visitors on what they need to do – trail head info – clean shoes & equipment
Inform staff about what they need to do to prevent – develop agency employee guidance
Ponder – Compare response to oil spill, oil will eventually go away, but invasives will not.

"Interest-based Problem Solving"
Mary L. McDonough, Federal Highway Administration

- *Recognize barriers to interagency relationships, need to get out of proving our cases and begin to focus on solutions, **true partnering focuses on interests, not positions**. Our positions often conflict even though our interests are compatible.*
- *Advantages of Interest based problem solving-better solutions, understanding, mutual resolutions, improved interagency relationships and trust- no deal is better than a bad deal.*
    1. *Begin with a Goal – define desired result*
    2. *Define the overall problem – ask effective questions, identify interests, needs & concerns(common)*
    3. *Identify interests – each agency interests – ask what the agency core interests are*
    4. *Develop options – brainstorm, present best practices, evaluate & select potential solutions*
    5. *Discuss alternatives – establish objective criteria, shorten list, work backward from solutions*
    6. *Select a solution through a consensus-building approach*
    7. *Keep the commitment: Live with it and make it work!*

Session I: Targeting Our Objectives

Jerrilyn Thompson, National Park Service, facilitated the one hour session to identify the invasive species of highest priority in Midwest. Prior to the session, fact sheets were summarized and distributed to all participants. Four work groups (aquatic plants, aquatic animals, terrestrial plants and terrestrial animals) identified priority species as emerging (no self- sustaining populations), spreading (self-sustaining populations starting) or chronic (self-sustaining populations) and prioritized species in each category. The species below were identified as the highest priority following workgroup discussions and polling of participants. The number in parentheses is the number of votes for the species. Priorities were determined using the guidelines: 1) Is the species a significant environmental problem now or is it likely to become an ecological threat? 2) Are there ways to prevent the species from entering an area or from spreading? 3) Are there ways to readily detect and rapidly respond to the species when present? 4) Can the species be eradicated or controlled? 5) Are there

policy enforcement mechanisms for these problematic species, their prevention, detection, rapid response or control?

1. Asian Carp (emerging, spreading and chronic) (24)
2. Zebra and Quaga Mussels (emerging, spreading and chronic) (18)
3. Emerald Ash Borer (spreading) (13)
4. Buckthorn (chronic) (12)
4. Garlic Mustard (chronic) (12)
6. Purple Loosestrife (chronic) (9)
7. Sea Lamprey (chronic) (7)
8. Eurasian Milfoil (chronic) (5)
8. Knapweed (chronic) (5)

Invasives - Aquatic Plants (the number in red preceding invasive is the number of votes for the species)

High Priority - Emerging	**Spreading**	**Chronic**
2 Giant Phragmites	5 European Milfoil	9 Purple Loosestrife
2 Hybridized Cattail	1 Curly Pondweed	4 Reed Canary Grass

Invasives - Aquatic Animals

High Priority - Emerging	**Spreading**	**Chronic**
18 Mussels (2 species)---------- (inland /rivers)	---------- (inland/rivers)	----------→ (Great Lakes)
24 Asian Carp (Miss. Basin)---------	----------	----------→
		7 Sea Lamprey (Great Lakes)
4 Round Goby (Miss. Basin)--------	----------	----------→
		2 Spiny Water Flea (Great Lakes)
		2 Rusty Crayfish (Rivers)
Lower Priority		
River Ruffe----------	----------	----------→
	1 Spiny Water Flea (inland)	
	1 Rusty Crayfish (Great Lakes)	

Invasives - Terrestrial Plants

High Priority - Emerging	**Spreading**	**Chronic**
Forest	Japanese Stiltgrass (south)	12 Buckthorn #
	Kudzu (chronic where exists)	12 Garlic Mustard #
	Ailianthus (south)	Ailianthus #
	Oriental Bittersweet (adapting across climatic habitats	1 Bush & Japanese Honeysuckle #
Open		Multi flora Rose #
Salt Cedar (chronic in distant areas and moving toward midwest)	3 Teasel - roadsides (adapting across climatic habitat; selected species representing home habitat variability	2 Japanese Knotweed #
(Pre-Emerging) Cheat Grass		5 Spotted Knapweed #
Yellow Star Thistle		2 Leafy Spurge #
Sahara Mustard		Canada Thistle #
		Wild Parsnip #
Lower Priority - Emerging		

	Russian Olive	

Additional criteria: Major coverage where exists and spreads relatively fast into other areas; out-competes and displaces natives; many agencies indicated species

Invasives - Terrestrial Animal

High Priority - Emerging	**Spreading**	**Chronic**
	13 Emerald Ash Borer	Oak Wilt
	1 Beechbark Disease (Asian Longhorn Beetle vector)	
	Asian Earthworms----------	----------→
Lower Priority - Emerging		
Wild Boar	Hemlock Wooly Adelegid	1 Gypsy Moth
Armadillo	Introduced Bees	Dutch Elm Disease
		Starlings
		European Sparrow
		Nutria
		Feral Cats

Session II: Seeking Opportunities for Collaboration

Agency Updates – Current Activities & Issues
Agency FY '06-'07 Projects & Activities Addressing Invasive Species

Army Corps of Engineers – Primary concern Asian carp in Mississippi, zebra mussels, purple loosestrife and leafy spurge. Working with Chicago District on permanent electrical barrier moving up the Illinois River ($9mil) demo& new one being constructed; fish passage work (prevention of Asian carp), zebra mussel sampling work, participation in annual goby round up, Chicago Sanitary & Ship Canal significant work, chair Mussel Coord Team, BO of maintenance of channel and ecosystem Illinois River Navigation project. Working with MN DNR on a carp. Work on Sea lamprey with Great Lakes Fishery Comm. Focus on more integrated mgmt chemical & low damn barriers (15-20 new barriers in design).

Bureau of Indian Affairs – Tech asst & admin support to tribes. Waterfowl enhancement initiative funding to tribes includes some purple loosestrife and other invasive work. Noxious weed program ($200K in Midwest) primarily for purple loosestrife; sponsored Midwest conference that focused on aquatic invasives. Agencies should deal with tribes directly. Beetle control facility at Leech Lake – opportunity for sharing. Continuing challenge to maintain invasives funding.

Coast Guard – International Maritime Organization trade initiative standards work is complex. US & Canada working together on Intl trade standards.

EPA – Invasion of asian carp, ballast water issue most important, then EAB is a strong concern due to spread from lower to upper Michigan. EPA identifies issues of concern in Forest Plan Revisions, Great Lakes Program Office (GLNPO) $ grants for invasive species. Working on template for what EPA can do for rapid response. Headquarters looks at econ effects from invasive species. Ballast water testing, DNA research, landscape characterization using remote sensing. Collaborating with Asian carp work group of the Great Lakes Regional Collaboration. Competitive program, partner funded, study of round gobys; sponsor conferences work with fishermen on invaders, EPA analysis of authority to deal with invasives. No large approach for invasives. GLNPO is a bigger player. Wetlands has been a focus.

Federal Hwy – Only one expert on invasives. Top 10 species listed on paper. Provided $ funding and coordinate work with other agencies. Some collaborative projects. Research program administered thru states. Agencies could work thru states to do studies. Burning out interstate medians to remove invasives and planting natives (Iowa).

BLM – Very limited surface management, primarily subsurface responsibility in the East. Working with Milwaukee area youth and education programs thru Neighborhood House. Contributed funds for education materials for schools. New publication "Invaders of the Forest"

FWS – Refuges have worked "inside" on treatment and it hasn't met the needs. Working thru NIFWIC, collab weed mgmt/st-fed-local-ngos mapping all invasive species in county. Initial grant funds need further support thru Inv Sp Network. "Evasive, pervasive" species. Integrated pest mgmt program with Sea Lampreys (chem., sterile males, barriers). FWS lead agency on Asian carp Control Program. Multi-agency partnership on as carp. Room for additional collab/cooperation. Look at potential rapid response program. 7 state/interstate mgmt programs, NEPA issues, Regional panels of Aquatic Nuisance Task Force. Ranking proposals for ballast water demo projects. Outreach & education partnership with FWS/USFS in Shedd Aquarium exhibit in Chicago. MN DNR & FWS& Cabellas for education project. Do no harm – train the trainers to ensure that employees don't contribute to spread.

NPS– 13 states in region, focus on Great Lakes. Most of invasives are not new. Exotic plant mgmt teams (one for Great Lakes). NPS mobile strike teams- management & control. Education & outreach trying to build support. Partnership & collaboration with other fed & st agencies. Not much focus on invasive pests (Chestnut & Dutch Elm disease). Concerned with Emerald Ash Borer and Asian Long Horned Beetle. Proposing initiative to deal with Eastern Forests like Oceans Initiative. Fund thru NRP Sleeping Bear, Ozarks, Aquatic nuisance sp – Asian carp spiny water flea, Focus Mgmt & control, ed & outreach and partnerships & collab.

USFS – Success with recent integrated pest management projects, provided coop weed mgmt training session. Tie to FS Strategic Plan, Agency's emphasis on "4 threats" includes NonNative Invasive Species. Developed a Regional Invasive Framework. Staff working with Forest Service Research and State & Private Forestry counterparts and have designated NNIS coordinators on all our Forests and Midewin National Tallgrass Prairie. Working to increase supply of native species seed and plants. All revised Forest Plans include direction on NNIS; shared training at regional "Forest Service University" (can open to other agencies), weed free forage and mulch not available in the East. Developing NNIS plant field guides, risk assessment IRANKS – rapid assessment tool getting finished. Working to control & remove NNIS from admin sites-walk the talk. Providing funding support to Midwest Invasives Plant Network, working on state NNIS plans. Research roll up for the Midwest – interested in setting up conference we could support. NNIS internet and intranet webpages, Implement Communication Plan. "Invasives Stone Soup" - We don't have much, but together we can make a great soup.

USGS – Work on NNIS in research centers. Sea lamprey control set up 50 yrs ago – binational treaty. Ecol/biology, chem. control, regulatory controls; pheromones//asian carp biology, risk assessment, eval chem. Control//monitoring programs long-term data pool for Great Lakes (research vessel in each Lake), monitor plankton, invertebrates. Invasive Species Institute for predictive monitoring mostly terrestrial plants. Involved in Midwest Invasive Plant Network – Indiana Dunes National Lakeshore, bittersweet//Research grants need to provide more partnerships.

NRCS - Incentive-driven conservation focused on private land in every county of US. State conservationists. 22 conservation center across the country. NNIS focus often on what natives can outcompete invasive species. Projects related to EAB, Leafy spurge and Salt Cedar. Field office tech guide updated to discourage use of NNIS. NRCS introduced kudzu. Farm Bill programs used WHIP to control NNIS thru Rx burning, assistance, 25 million hits on website. National Plant Data Center to provide info. Outstanding opportunity to use established National Assoc of Conservation Districts as partners working to address invasives. RC&Ds partnership district outreach/ delivery system in virtually every county. Conservation security system – incentives, vary by state.

What is working?

BIA control beetles cost share – NPS
BIA Nation-to-Nation idea; lessons for cross boundary/interagency relationships? Protocols?
Ballast water- EPA has research on invasives
Chicago COE may have a good basis for collaboration that other agencies could tie to
Coast Guard interagency collaborations are working well; share best practices?
Coast Guard sampling program; ballast water testing in Massena, NY
Joint creation of learning projects (BLM/FS)
"Invaders of the Forest"-BLM & USFS involved in curriculum
EPA SOLEC indicators
Contribute funds to Nature Serve (I-Ranks)
FS/NPS research with satellite imagery (purchase imagery & share)
FWS has Asian Carp national control plan; ruffe control plan
FHWA USFS and NPS work on pulling garlic mustard in Central MI with local county road agencies
Buffer zones to protect sensitive areas FHWA Mitigation buffer zones.

Roadsides for Wildlife program
Roads as pathways for invasives – FWY federal lands unit that do work for federal highways. Mowing and hauling gravel on county roads help spread invasives. LTAP education county maintenance workers/engineers tied thru university. Education & outreach; many avenues and opportunities
Consistency of data is important, but need to capitalize on NRCS delivery mechanism (they are in every county in the US).
Successful programs (NRCS) incentive-driven
Templates on website for invasive plant identify and link to MNRG website.
Southern University has a plants database

What are some challenges?
Have MNRG MOU as a starting point for challenge cost share (initial emphasis was aquatic; add terrestrial)
Agencies should give consistent message on movement of firewood, hiking boots cleaning. Can be proactive with EAB.
BIA Circle of Wings Program constantly fighting for survival. Can other agencies support?
Coast Guard Interagency Force – A best practice we can use? Frequent turnover of employees tough on continuity.
Education about federal programs jointly so we can put more funds on the ground.
Roads as pathways for invasives – Need for regional initiative; Education needs.
Federal versus local issue needs; education and communication
Could bridge construction on rivers serve as lowhead dam barrier?
National programs and data bases – how to tailor for our region?
Sharing expertise and training - agencies should share/combine efforts. Help w/ consistency and reducing costs.
Spreading the FHWA, USFS and NPS pulling garlic mustard with local county road agencies – spreading the model elsewhere
Coordinating national programs with region and states
Understanding each agencies acronyms and jargon

Concurrent Sessions

Session III: Putting It All Together – Directions for the Future

The purpose of this session was to develop recommendations on Invasive Species for MNRG Senior Leadership. Goals, strategies and potential implementation actions were identified by all participants. Using the information from previous sessions, goals, strategies, and potential actions were identified and discussed. Four key themes were identified:

- Coordinating Interagency Actions
- Resource Collaboration and Sharing, Internal MNRG "Inreach", Communications
- Scientific Information Exchange
- Educational Outreach

THEME: Coordinate Interagency Actions

GOAL: Full MNRG involvement in existing invasive species forums in the Midwest

STRATEGY: Facilitate agency participation in national, regional, and local invasive species groups

Potential Implementation Actions:

- Assess agency participation in existing regional panels* and determine if these forums are sufficient to coordinate actions. (*Existing panels include: Mississippi and Great Lakes panels on Aquatic Nuisance Species and Midwest Invasive Plant Network)
- Encourage all MNRG agencies to support ANS and MIPN
- Create Ad hoc group to make recommendations on active participation and support and need for any new forums at spring 2006 MNRG meeting.
- Build upon information on MNRG website and have more active participation in invasives groups/networks

THEME: Resource Collaboration

GOAL: Improve internal communications and resource sharing among MNRG member agencies

STRATEGY: Develop a mechanism to coordinate and facilitate sharing resources such as professional expertise, databases, and training.

Short term (<12 months):

1. Build MNRG resource directory (agency role, resources, key contacts, websites, resources, success stories, shared key messages)
2. Develop a communication plan
3. Full participation on key invasives groups/panels/networks by MNRG agencies
4. Define MNRG structure and role in coordinating inventory mapping and treatment of invasives in the Midwest.

Long term (1-3 years):

1. Develop internal training and education programs that can be shared across agencies (from basic awareness to specialized training)
2. Sharing resources (scientists, technical experts, treatment crews)
3. Provide effective coordination of inventory, mapping and treatment of invasive species in the Midwest.
4. Programmatic documents for treatment of invasives (i.e. APHIS NEPA for Emerald Ash Borer)
5. Develop a strategic action plan

Potential implementation actions:

- Focus for MNRG - bringing right people to table
- Broader federal agency communications plan
- Conservation biology message on invasives
  - All employees basic training/information
  - Seasonal resource crews - training
    - YCC
    - Public land Corps
- MNRG Website
  - Information links to networks
- HAZ Analysis and critical control points
  - Job Haz. Analysis
- Identify existing protocols in MNRG agencies, compare differences
- Develop standardized protocols
- Develop early detection-rapid response protocol
- MOU /Sharing document
- Collaborate/ pool resources to coordinate inventory, mapping and treatment of invasive species (USGS?)
- Resource sharing; Identify all agency needs and ability to share
  - NPS Exotic Plant Management Team
- Environmental compliance – Quick Response Plan
- Develop an invasives programmatic Environmental Assessment in the midwest
- Programmatic treatment document for species - streamlined management response
- Provide success stories

- Identify funding sources for collaborative efforts

- EDDR through local implementation and us of predictive inventory tools (USGS)
- Develop biocontrol strategies and determine each MNRG agency's role
- Support biocontrol for priority species in the Midwest

- Develop mechanisms for adaptive management

Theme/Goal: Scientific Information Exchange

GOAL: To communicate activities related to invasive exotic species among MNRG agencies

Strategy: Provide a web-based internet source for exchange of scientific information related to invasives

Short term:
1. Develop a link on the MNRG website where every agency will provide a comprehensive list of field people actively engaged in invasive/exotic species control/monitoring.
2. Contact NatureServe about being a clearing house for past research on invasive /exotic plants and animals.
3. All federal agencies provide data on past research of invasive exotic plants and animals to NatureServe.

Long term:
1. Provide funds to NatureServe to assist all federal agencies in the proposed action above

Potential implementation actions:
- Build upon existing website to provide information on past research of emerging invasives
- Describe research priorities for invasives in the Midwest
- Define research capacity of MNRG partners
- Information synthesis
- Identify links with other organizations addressing invasives
- Identify invasive species distribution / GIS applications

THEME: Educational Outreach

Goal: Promote collaborative public education and outreach on invasive species.

Strategy: Develop uniform MNRG talking points to communicate to the public and include in invasives species outreach material.

Long term:
1. Communicate about and encourage the use (or sale) of good invasive species resources.
2. Encourage “train the trainer” programs
3. Continue support for or development of educational outreach products.
4. Sustain communications with our stakeholders, general public, customers, and legislators at local and federal levels.

Potential implementation actions:
- Develop talking points on the invasives species problem that can be plugged into ongoing programs.
- Identify and catalog existing education outreach products dealing with invasives.
- Develop new products as needed, sharing costs and resources and working in concert with the Midwest Invasive Plant Network.
- Directive from agency leadership making it a priority for their properties and offices to be leaders in the invasives issue and for their staffs to communicate good practices by example
- Develop signage for bulletin boards, text for waysides about invasives
- Prioritize funding to reprint pre-existing brochures (through MIPN)

Thursday, November 10, 2005

Session IV: Strategies for Action

Recommendations for Action Presented to MNRG Senior Leaders

1. **Coordinate Interagency Actions**
   - Goal: Full/effective MNRG involvement in existing invasive species forums in the Midwest.
     Strategy: Facilitate agency participation in national, regional and local invasive species groups.
2. **Resource Collaboration**
   Goal: Improve interagency resource sharing among MNRG member agencies.
   Strategy: Develop a strategy to coordinate and facilitate sharing resources such as professional expertise, databases and training.
3. **Scientific Exchange**
   Goal: Communicate activities related to invasive species among MNRG agencies.
   Strategy: Provide a web based internet source for exchange of scientific information.
4. **Education Outreach**
   Goal: Promote collaborative public education and outreach on invasive species
   Strategy: Identify existing outreach materials addressing priority invasive species and develop uniform talking points.

"Defining an MNRG Strategy for Collaboration and Partnering"
Discussion of Recommendations and Directions for the Future

Chair Ernie Quintana requested that the following actions be taken on behalf of MNRG:
1. Create an MNRG Invasives Species Committee and develop an Invasive Species Action Plan by May 1, 2006.
Agencies to provide names of members to MNRG Planning Team within 2-4 weeks.

2. Provide MNRG recommendations to the Great Lakes Regional Collaborative
Chair of Communication Committee to draft letter to GLRC with recommendation crafted at MNRG meeting. USFWS to provide editorial assistance on statement (draft below).

Draft Statement for MNRG to GLRC:
The Federal Midwest Natural Resources Group (MNRG) will apply existing resources to form an interagency team to effectively coordinate and develop inventories, mapping and treatment of terrestrial invasive species. Develop an action plan by May 1, 2006 including the following actions:

1. Define MNRG involvement and role to support existing infrastructure and initiatives focused on terrestrial invasive species.
2. Coordinate and facilitate sharing resources such as professional expertise, data bases and training,
3. Provide a web-based internet source for exchange of scientific information.
4. Coordinate collaborative public education and outreach on invasive species.